

## SECTION 2 – 1.5T RF CABINET TROUBLESHOOTING

These troubleshooting flowcharts were developed to help in identifying failing hardware in the 1.5T RF Cabinet. It is a guide of possible causes to different symptoms which are detailed in Table 2–1. It is intended to provide calibration, diagnostics or functional check procedures to help identify a related problem to a Field Replacement Unit (circuit board or electronic hardware).

This procedure starts with the premise that the Field Service Engineer (FSE) is aware of the symptom to be:

- Known Module Failure (Power Monitor Module, Dynamic Disable Module, EFB Assy., RF Amplifier)
- Image Quality Symptoms
- Signa Error Message Giving a Hardware Cause
- Calibration or Functional Check Failure Relating to Specific Hardware
- RF Amplifier Fault Codes (Detailed Flowcharts)

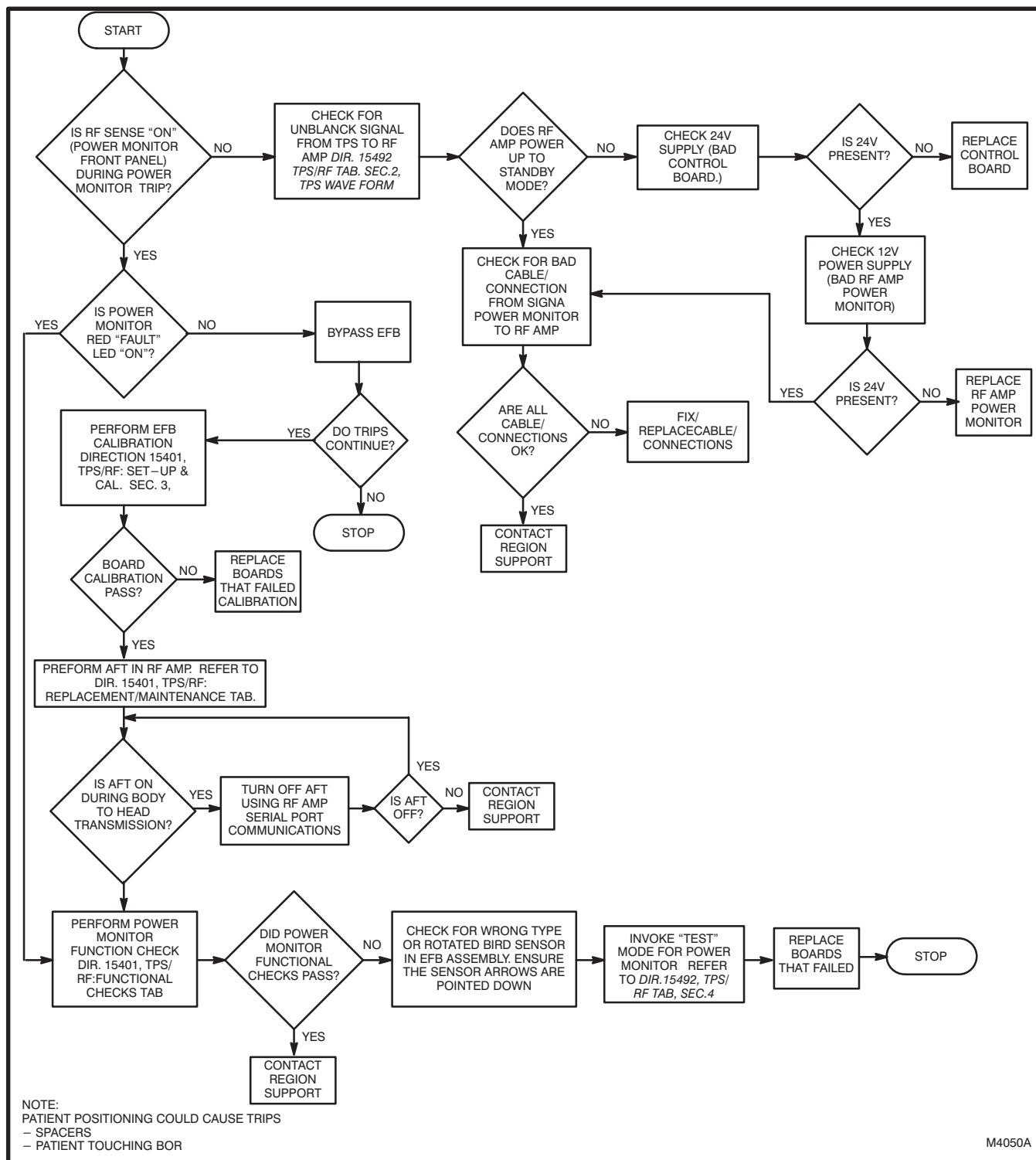
TABLE 2-1  
TROUBLESHOOTING FLOWCHART MATRIX

SIGNA ADVANTAGE SYMPTOMS	SUBSYMPTOMS	PAGE
POWER MONITOR TRIPS		2-4
DYNAMIC DISABLE/TR DRIVER TRIPS/CALIBRATION		2-5
INCORRECT RF AMP POWER OUT	EFB PRESCAN FAILURE POWER MONITOR TRIPS	2-5 2-5 2-5
IMAGE QUALITY	POOR SNR SLICE TO SLICE INTENSITY VAR SHADING GHOSTING ZIPPERS CORDUROY ARTIFACTS/SPIKE NOISE	2-6 2-7 2-7 2-8 2-8 2-9
RF INSTABILITY		2-10
RF AMPLIFIER FAULT CODES	00 - 05, 07 - 09 03 with Fault 21 or 85 06 10 11 12 13 14 15 16 17 18 19 20 21 21 22 - 30 32 35 - 38 42 - 45 46 - 49 50 - 51 52 53 55 - 59 60 - 62 63 - 64 70 71 72 73 - 76 77 78 79 - 80 81 82 - 83 84 - 85 85 with Fault 03 or 21 86 87 88 - 89 90 91 92 93 - 94	2-13 2-14 2-15 2-16 - 2-17 2-18 2-20 - 2-21 2-22 - 2-23 2-24 2-26 - 2-27 2-29 2-30 - 2-31 2-32 2-33 2-34 2-36 - 2-37 2-38 2-39 2-40 - 2-41 2-40 - 2-41 2-40 - 2-41 2-42 - 2-43 2-44 2-45 2-46 - 2-49 2-50 - 2-52 2-53 2-54 2-55 2-57 2-58 - 2-61 2-62 - 2-63 2-64 - 2-65 2-66 - 2-67 2-68 2-69 2-70 2-71 2-73 2-74 2-75 2-76 - 2-77 2-78 - 2-79 2-80 - 2-81 2-82

TABLE 2-1 (continued)  
TROUBLESHOOTING FLOWCHART MATRIX

SIGNA ADVANTAGE SYMPTOMS	SUBSYMPTOMS	PAGE
RF AMPLIFIER CHECKOUT	BYPASS ENVELOPE FEEDBACK ASM. BODY	2-83
	BODY RF OUTPUT POWER	2-84
	SOLID STATE AMPLIFIER (BODY MODE)	2-87
	EXCITER BOARD OUTPUT	2-90
	HEAD RF OUTPUT POWER	2-93
	SOLID STATE AMPLIFIER (HEAD MODE)	2-96
	IPA INPUT BOARD	2-99
	SERIAL LINK CONFIGURATION	2-102
	AFT FOR THE ERBTEC AMPLIFIER	2-106
	READING THE A/D REGISTERS	2-108
POWER SUPPLY CHECK OUT	2-112	

2-1 POWER MONITOR TRIPS TROUBLESHOOTING FLOWCHART

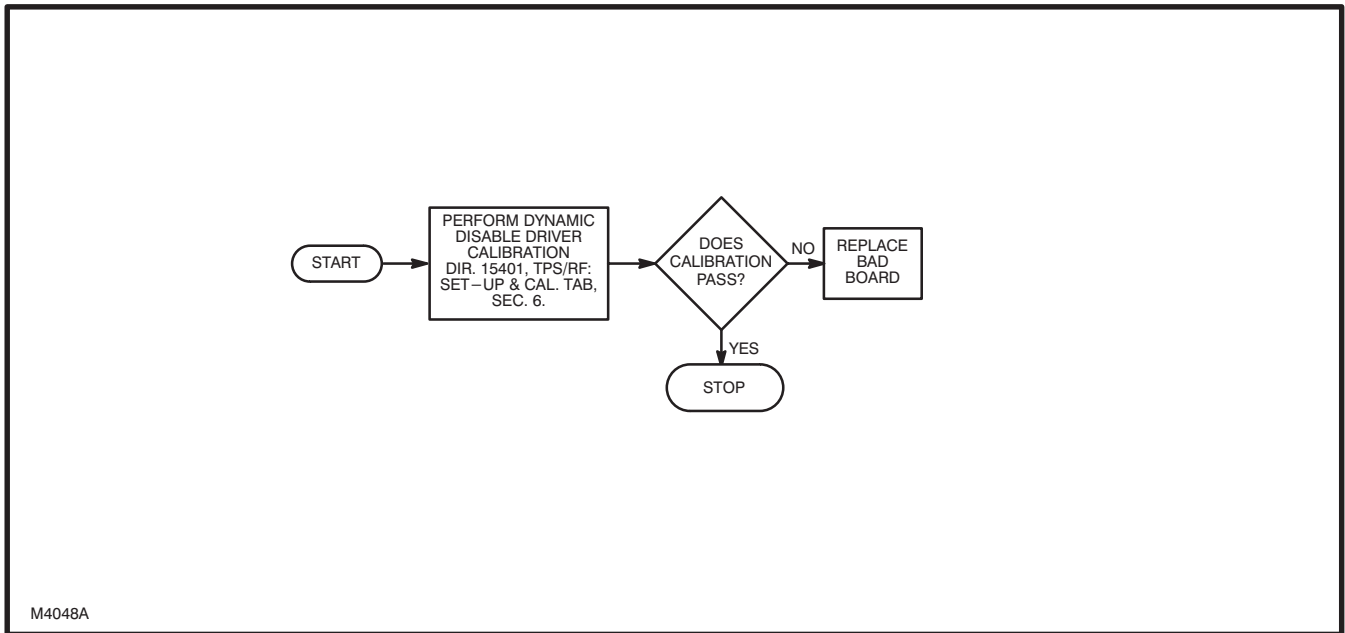


M4050A

POWER MONITOR TRIPS TROUBLESHOOTING FLOWCHART

ILLUSTRATION 2-1

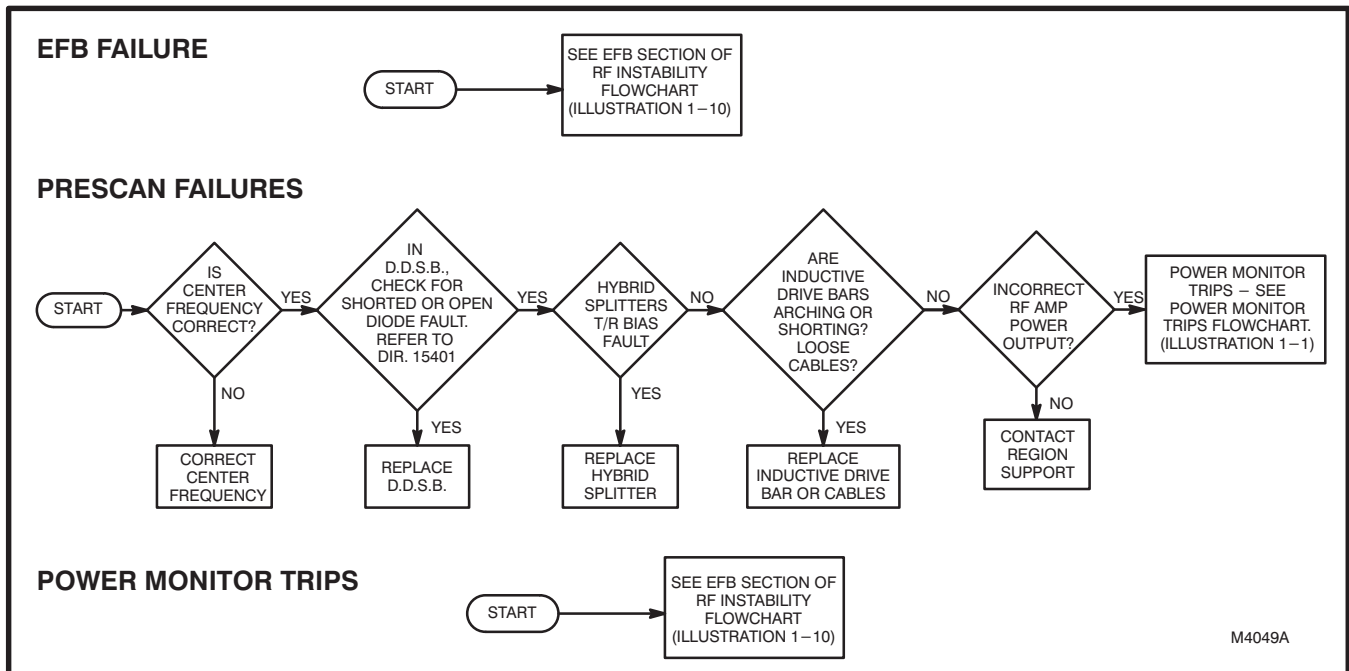
2-2 DYNAMIC DISABLE/TR DRIVE TRIPS/CALIBRATIONS TROUBLESHOOTING FLOWCHART



M4048A

DYNAMIC DISABLE/TR DRIVER TRIPS/CALIBRATIONS TROUBLESHOOTING FLOWCHART  
ILLUSTRATION 2-2

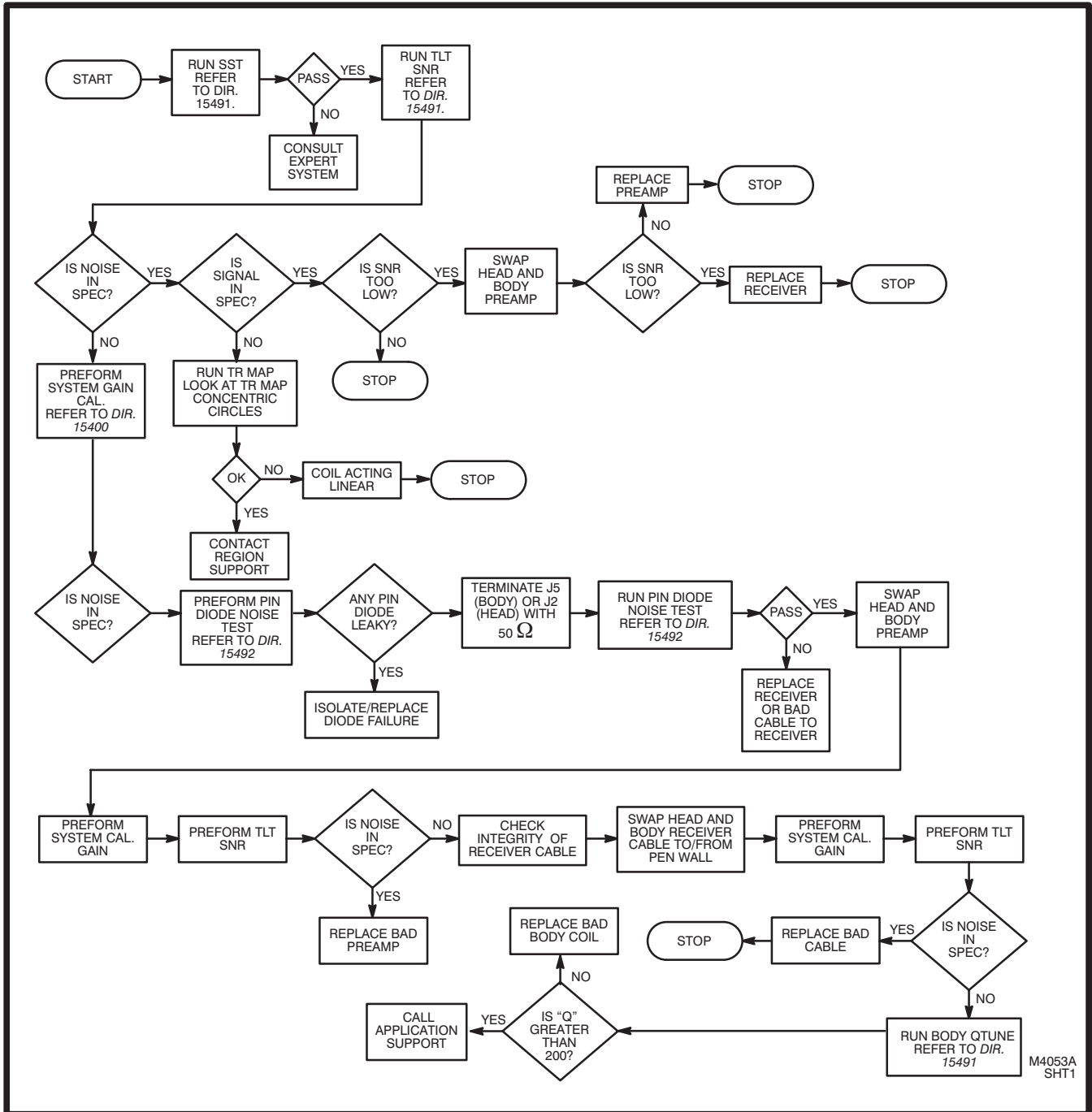
2-3 INCORRECT RF AMP POWER OUT TROUBLESHOOTING FLOWCHART



M4049A

INCORRECT RF AMP POWER OUT TROUBLESHOOTING FLOWCHART  
ILLUSTRATION 2-3

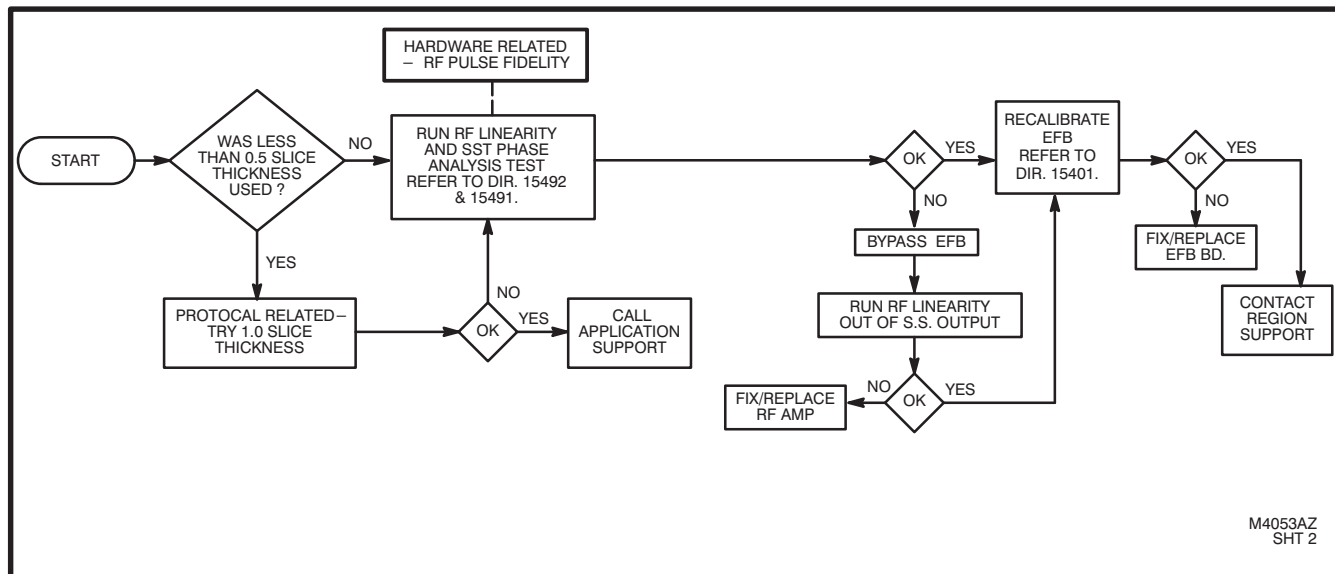
2-4 IMAGE QUALITY TROUBLESHOOTING FLOWCHART



M4053A  
SHT1

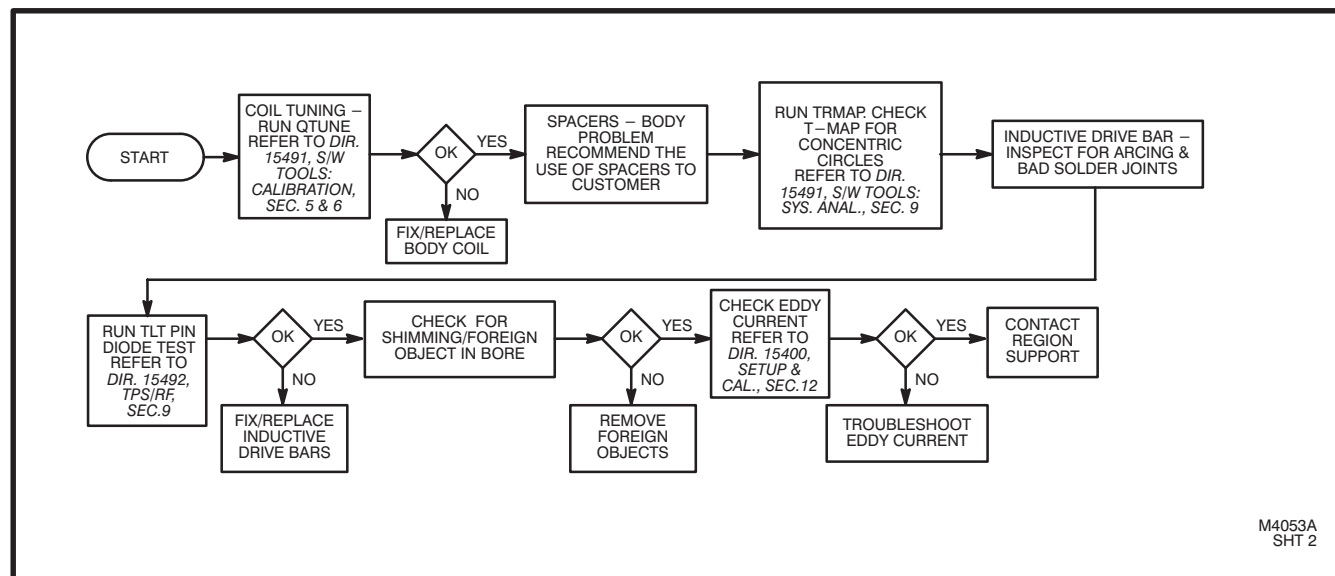
IMAGE QUALITY (POOR SNR) TROUBLESHOOTING FLOWCHART  
ILLUSTRATION 2-4

2-4 IMAGE QUALITY TROUBLESHOOTING FLOWCHART (continued)



M4053AZ  
SHT 2

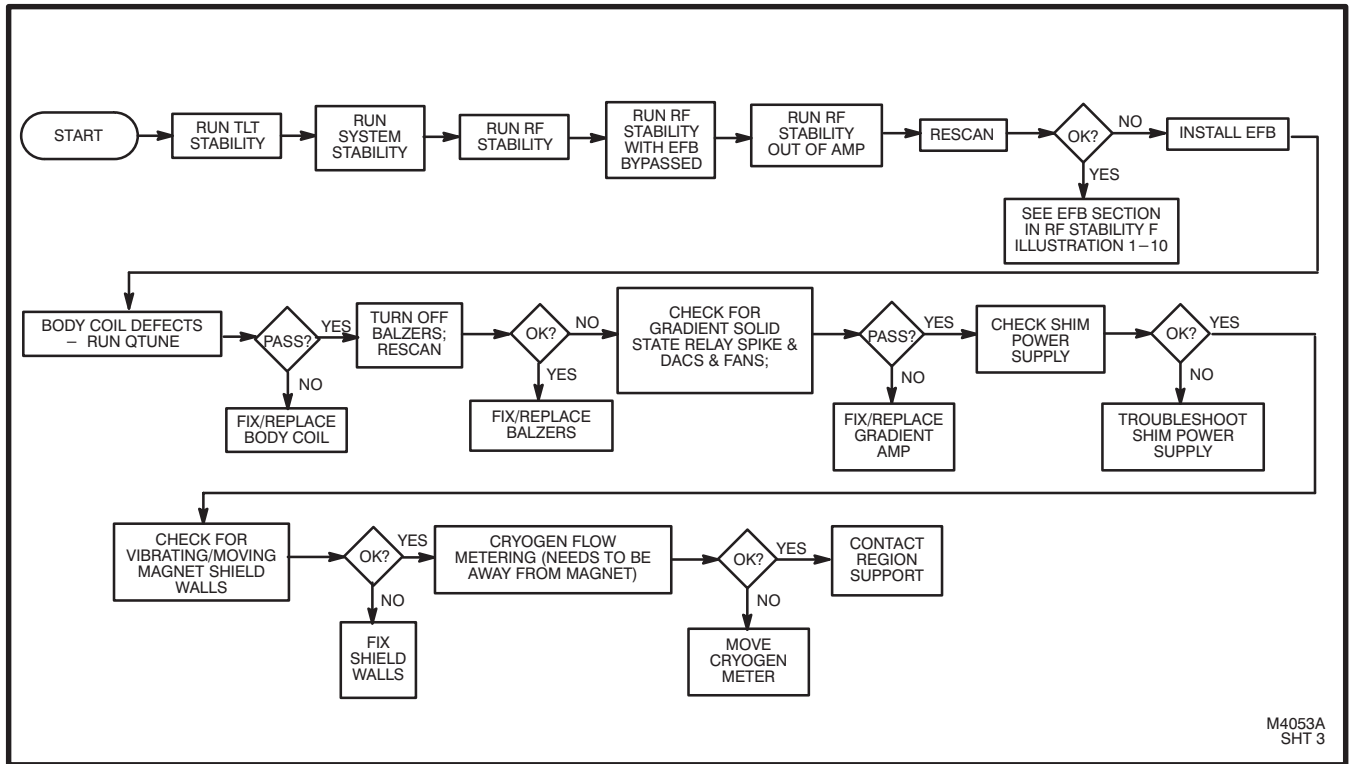
IMAGE QUALITY (SLICE TO SLICE INTENSITY VARIATION - LINEARITY) TROUBLESHOOTING FLOWCHART  
ILLUSTRATION 2-5



M4053A  
SHT 2

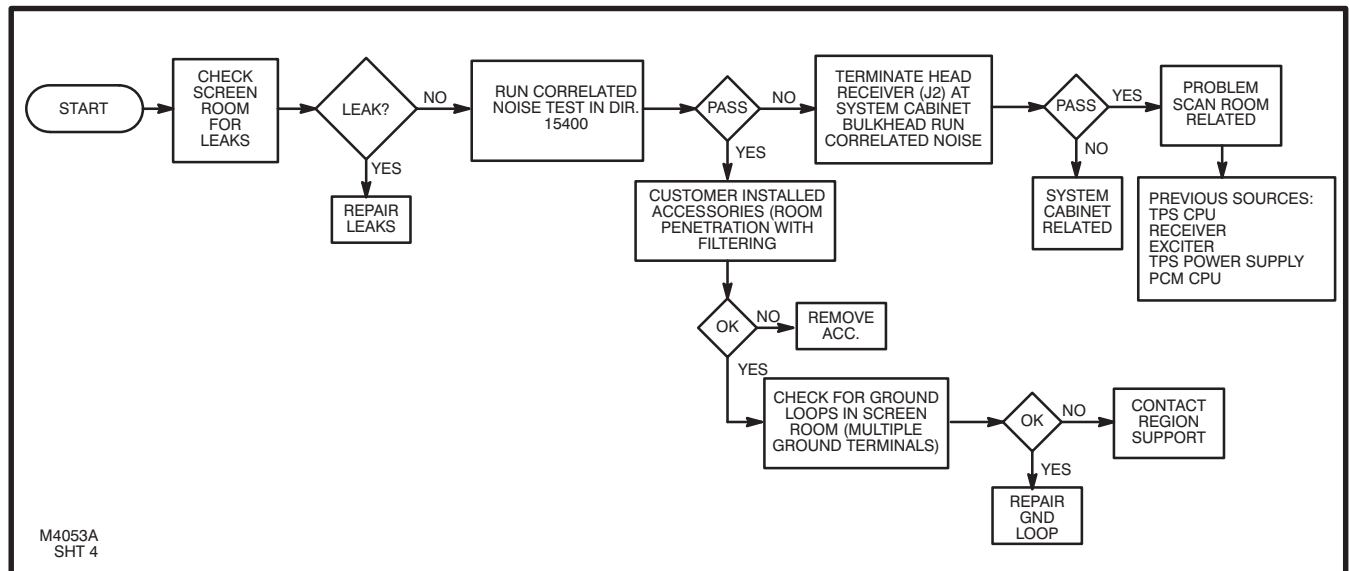
IMAGE QUALITY (SHADING) TROUBLESHOOTING FLOWCHART  
ILLUSTRATION 2-6

2-4 IMAGE QUALITY TROUBLESHOOTING FLOWCHART (continued)



M4053A  
SHT 3

IMAGE QUALITY (GHOSTING) TROUBLESHOOTING FLOWCHART  
ILLUSTRATION 2-7



M4053A  
SHT 4

IMAGE QUALITY (ZIPPERS) TROUBLESHOOTING FLOWCHART  
ILLUSTRATION 2-8